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What is claimed is:

1 1. A method for avoiding data loss in a PDA,
2 wherein the PDA has a RAM to store user information, a
3 battery to power the PDA, a CPU, and a nonvolatile
4 accessible memory with a predetermined region, the method
5 comprising:

6 backing up user information stored in the RAM into
7 the predetermined region when remaining power
8 of the battery is lower than a default value;
9 and

10 restoring user information from the predetermined
11 region to the RAM when system power is
12 recovered.

1 2. The method as claimed in claim 1, wherein the
2 PDA further comprises a power detection unit to output an
3 enable signal when remaining power of the battery is
4 detected as lower than the default value, and output a
5 recovery signal when remaining power of the battery
6 exceeds the default value, wherein the CPU backs up user
7 information stored in the RAM to the predetermined region
8 in response to the enable signal, and restores user
9 information from the predetermined region to the RAM in
10 response to the recovery signal.

1 3. The method device as claimed in claim 1,
2 further comprising a step of interrupting access to the
3 RAM before backing up user information into the
4 predetermined region.

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1 4. The method as claimed in claim 1, wherein user
2 information comprises file system, registry, and global
3 operating system settings.

1 5. A method for avoiding data loss in a PDA,
2 wherein the PDA has a RAM to store user information, a
3 battery to power the PDA, a CPU, a nonvolatile accessible
4 memory to store preset data, and a user interface to
5 output an enable signal and a recovery signal, wherein
6 the nonvolatile accessible memory has a predetermined
7 region, the method comprising:

8 backing up user information stored in the RAM into
9 the predetermined region in response to the
10 enable signal; and

11 restoring user information from the predetermined
12 region to the RAM in response to the recovery
13 signal.

1 6. The method as claimed in claim 5, further
2 comprising a step of interrupting access to the RAM
3 before backing up user information into the predetermined
4 region.

1 7. The method as claimed in Claim 6, wherein user
2 information comprises file system, registry, and global
3 operating system settings.

1 8. A PDA capable of avoiding data loss,
2 comprising:

3 a nonvolatile accessible memory having a
4 predetermined region;

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5 a RAM to store user information;
6 a battery to power the PDA; and
7 a power detection unit to output an enable signal
8 when remaining power of the battery is detected
9 as lower than the default value, and to output
10 a recovery signal when remaining power of the
11 battery exceeds the default value.

1 9. The PDA as claimed in claim 8, wherein the CPU
2 interrupts access to the RAM before backing up user
3 information into the predetermined region.

1 10. The PDA as claimed in claim 8, wherein the
2 predetermined region backs up user information only.

1 11. The PDA as claimed in claim 8, further
2 comprising a user interface to output the enable single
3 and the recovery signal.

1 12. The PDA as claimed in claim 8, wherein the
2 nonvolatile accessible memory further stores preset data.

1 13. The PDA as claimed in claim 8, wherein the
2 nonvolatile accessible memory is flash memory.

1 14. The PDA as claimed in claim 8, wherein the RAM
2 is SDRAM.

1 15. The PDA as claimed in claim 5, wherein the
2 power detection unit comprises:
3 an amplifier having an output terminal coupled to
4 the CPU;

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5 a first resistor coupled between a positive end of
6 the battery and a non-inversion input terminal
7 of the amplifier;

8 a second resistor coupled between a negative end of
9 the battery and ground;

10 a third resistor coupled between a reference voltage
11 and an inversion input terminal of the
12 amplifier;

13 a fourth resistor coupled between the non-inversion
14 input terminal of the amplifier and the ground;
15 and

16 a fifth resistor coupled to the output terminal of
17 the amplifier.

1 16. A PDA capable of avoiding data loss,
2 comprising:

3 a nonvolatile accessible memory storing preset data
4 and programs;

5 a RAM to store user information;

6 an external flash memory having a predetermined
7 region;

8 a battery to power the PDA;

9 a power detection unit to output an enable signal
10 when remaining power of the battery is detected
11 as lower than a default value, and output a
12 recovery signal when remaining power of the
13 battery exceeds the default value; and

14 a CPU coupled to the nonvolatile accessible memory,
15 the RAM and the external flash memory, to back
16 up user data stored in the RAM to the

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17 predetermined region when receiving the enable
18 signal and to restore user information to the
19 RAM when receiving the recovery signal.

1 17. The PDA as claimed in claim 16, wherein the CPU
2 interrupts access to RAM before backing up user
3 information into the predetermined region.

1 18. The PDA as claimed in claim 16, wherein the
2 predetermined region of the external flash memory backs
3 up user information only.

1 19. The PDA as claimed in claim 16, further
2 comprising a user interface to output the enable signal
3 and the recovery signal.

1 20. The PDA as claimed in claim 16, wherein the RAM
2 is synchronous DRAM (SDRAM).

1 21. A method for avoiding data loss in a PDA,
2 wherein the PDA has a RAM to store user information, a
3 battery to power the PDA, and a nonvolatile accessible
4 memory to store preset data, and the nonvolatile
5 accessible memory has a predetermined region, the method
6 comprising:

7 backing up user information stored in the RAM to the
8 predetermined region in response to voltage
9 variation of the battery.